IAP15 Rec'd PCT/PTO 18 AUG 2006

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL LETTER TO THE UNITED STATES		ATTORNEY'S DOCKET NUMBER 915-007.208					
DESIGNATED/ELECTED OFFICE (DO/EO/US)							
CONCERNING A SUBMIS	U.S. APTLOATION NA MIKING 39 37 CFR 1.5)						
INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED					
PCT/IB2004/000439	February 12, 2004	February 12, 2004					
CHANNEL E	TITLE OF INVENTION CHANNEL EQUALIZATION						
	APPLICANT(S) FOR DO/EO/US Markku RENFORS, Tero IHALAINEN, Tobias HIDALGO STITZ						
Applicant herewith submits to the Unite	d States Designated/Elected Office (DO/E	O/US) the following items and other information:					
1. X This is a FIRST submission of iter	ns concerning a submission under 35 U.S.C. 37	1.					
2. This is a SECOND or SUBSEQUE	2. This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.						
3. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.							
4. X The US has been elected (Article 31).							
5. X A copy of the International Application as filed (35 U.S.C. 371(c)(2))							
a. is attached hereto (required only if not communicated by the International Bureau).							
b. X has been communicat	b. $\overline{X}$ has been communicated by the International Bureau.						
c. is not required, as the	c. is not required, as the application was filed in the United States Receiving Office (RO/US).						
6. An English language translation	6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).						
a. is attached hereto.							
b. has been previously s	b. has been previously submitted under 35 U.S.C. 154(d)(4).						
7. Amendments to the claims of the	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))						
a. are attached hereto (	a. are attached hereto (required only if not communicated by the International Bureau).						
b. have been communic	b. have been communicated by the International Bureau.						
c. have not been made	c. have not been made; however, the time limit for making such amendments has NOT expired.						
d. have not been made	d. have not been made and will not be made.						
8. An English language translation	An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).						
9. An oath or declaration of the inv	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).						
10. An English language translation Article 36 (35 U.S.C. 371(c)(5)).	An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).						
Items 11 to 20 below concern document(s) or information included:							
11. X An Information Disclosure State	An Information Disclosure Statement under 37 CFR 1.97 and 1.98.						
12. An assignment document for red	An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.						
13. X A preliminary amendment.	A preliminary amendment.						

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.

A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

A second copy of the published International Application under 35 U.S.C. 154(d)(4).

An Application Data Sheet under 37 CFR 1.76.

A power of attorney and/or change of address letter.

A substitute specification.

18. X

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U.S. APPLICA	197590	, see 37 CSR 1.5)	INTERNATIONAL AF	PPLICATION NO.	ATTORNEY'S DO	CKET NUMBER
4	0/590	027	PCT/IB2004/00	00439	915-007.208	
20. Other items or information: PCT/IB/308						
The foll	owing fees have b	een submitted			CALCULATIONS	PTO USE ONLY
21. 🖎 Basi				\$ 300.00		
22. 😨 Examination fee (37 CFR 1.492(c))						
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)\$0  All other situations\$200					\$ 200.00	
23. X Search fee (37 CFR 1.492(b))  If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)			\$ 400.00			
	TOTAL OF 21, 22	2 and 23 =			900.00	
sequenc electroni	Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).  The fee is \$250 for each additional 50 sheets of paper or fraction thereof.  Ital Sheets Extra Sheets Number of each additional 50 or fraction RATE thereof (round up to a whole number)					
- 100 =	/50 =			x \$250	] <sub>\$</sub>	1
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$		
CLAIMS	NUMB	ER FILED	NUMBER EXTRA	RATE	\$	
Total claims	43	- 20 =	23	x \$50	\$ 1,150.00	
Independent clair	ms 4	- 3 =	1	x \$200	\$ 200.00	
MULTIPLE DEP	ENDENT CLAIM(S	i) (if applicable)		+ \$360	\$	
			TOTAL OF ABOVE	CALCULATIONS =	\$ 2,250.00	
Applicant cla	Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
SUBTOTAL =				\$		
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).			\$			
TOTAL NATIONAL FEE =			\$ 2,250.00			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +			\$			
TOTAL FEES ENCLOSED = \$				\$		
					Amount to be refunded:	\$
					Amount to be charged	\$

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L&J						
a. [A]	A check in the amount of \$ 2,250.00	to cover the above	fees is enclosed.			
b. L	Please charge my Deposit Account NoA duplicate copy of this sheet is enclosed.	in the amount of \$	to cover the above fees.			
c. X	c. X The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No.23-0442 A duplicate copy of this sheet is enclosed.					
d. 🗆	d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.						
			$\sim$			
SEND A	LL CORRESPONDENCE TO:	_	Janin Maguire			
Cus	stomer No. 004955	_	SIGNATURE			
			Francis J. Maguire			
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## IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

REGARDING THE INTERNATIONAL DOCKET OR REFERENCE NUMBER:
APPLICATION OF:
PCT/IB2004/000439 915-007.208

ENTITLED:
CHANNEL EQUALIZATION

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## NATIONAL STAGE EXPRESS MAIL CERTIFICATE

"Express Mail" label number: EV 711306586 US

Date of Deposit: August 18, 2006

I hereby certify that the following attached papers or fee

Transmittal Letter to the U.S. Designated/Elected Office (DO/EO/US)

Preliminary Amendment

Copy of Intl. App. as published under WO 2005/091583 A1 on September 29, 2005

front page, 29 pages specification, 13 pages claims, 1 abstract, 4 pages drawings

Information Disclosure Statement, International Search Report, PTO-Form 1449

PCT/IB/308

Check for \$ 2,250.00 for payment of fees

Self addressed stamped return postcard

Are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

## Marilyn O'Connell

(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

Each paper letter or communication relating to an international application during the international stage for which a date of filing is to be obtained as of the date of mailing must have its own certificate and the "Express Mail" label number as a part thereof or attached thereto. When, as here, the certification is presented on a separate sheet, that sheet must (1) be signed and (2) fully identify and be securely attached to the paper or fee it accompanies. Identification should include the serial number and filing date of the application as well as the type of paper being filed, e.g. complete application, specification and drawings, responses to rejection or refusal, notice of appeal, etc. If the serial number of the application is not known, the identification should include at least the name of the inventors (s) and the title of the invention.

The label number need not be placed on each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter or a fee, along with the certificate of mailing by "Express Mail". Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is place.

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